



# Rio Algom

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April 20, 2000

Ms. Paula Cutillo  
WDEQ/LQD  
Herschler Building  
122 West 25<sup>th</sup> Street  
Cheyenne, WY 82002

40-8964

**RE: Corrective Action Report**  
**West Evaporation Pond Leak**  
**Permit to Mine 633, License SUA-1548**

Dear Ms. Cutillo:

Pursuant to Wyoming Department of Environmental Quality Permit to Mine 633 and NRC License condition 12.5, please find attached a corrective action report describing the actions taken in response to a leak in the west evaporation pond discovered on March 19, 2000.

If you have any questions or comments regarding the submittal, please feel free to contact me at (307) 358-3744, ext. 62.

Sincerely,

John W. Cash  
Supervisor, Environmental  
& Regulatory Affairs

xc: J. Lusher - U.S. NRC (Div. of Low Level Waste Mgt. & Dec.) Rockville, MD  
**Certified Mail - 7099 3220 0008 5206 2788**  
B. Ferdinand (RAMC-Smith Ranch Facility)  
M. Freeman (RAMC-OKC Office)  
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file

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**Rio Algom Mining Corp.**  
**Permit to Mine #633**  
**License SUA-1548 Docket No. 40-8964**  
**Smith Ranch Facility**

**West Evaporation Pond Leak Corrective Action Report**

During a routine inspection on the morning of March 19, 2000, a wellfield operator discovered that the west evaporation pond was leaking into the sump. Samples were collected the same day to determine the source of the water. The analytical results, shown below, confirm the west evaporation pond was the source of the water.

**West Evaporation Pond Sump Sample Taken on 3/19/00**

Chloride	Unat	Sulfate	Bicarbonate	Specific Cond.
14,000 mg/l	25 mg/l	13,000 mg/l	376 mg/l	51,200 micro-Siemens

Mr. John Lusher of the Nuclear Regulatory Commission and Ms. Paula Cutillo of the Wyoming Department of Environmental Quality-Land Quality Division were contacted by telephone on March 22, 2000 and informed of the leak.

The contents of the west pond were immediately evacuated into the east pond to prevent further leakage and to aid in finding the leak. Two old patches were found to have partially lifted edges. Both patches were repaired on March 31, 2000 and the pond was refilled beginning on April 1, 2000. Upon refilling, the pond water began to very slowly seep into the sump again suggesting that either there was a third leak or that one of the patch jobs didn't hold. A sample was taken from the sump, results shown below, which confirmed the source of the leak as the west evaporation pond.

**West Evaporation Pond Sump Sample Taken on 4/11/00**

Chloride	Unat	Sulfate	Bicarbonate	Specific Cond.
13,000 mg/l	88 mg/l	11,000 mg/l	640 mg/l	47,100 micro-Siemens

Therefore, RAMC began lowering the pond level again on April 11, 2000. The pond is being lowered at a slow rate so the level of the leak can be determined. Unfortunately, the level of the leak has yet to be determined. A weekly sample has been taken for the week of April 16, 2000 but the results are still pending. The results will be reported in next month's submittal.

The evaporation pond leak is very slow and all fluids have been contained in the sump.

To prevent this type of incident from reoccurring, RAMC is currently reviewing three items. First, RAMC is checking on the availability of a glue material that may be more suitable for the application. Second, RAMC is considering changing the type of patch material currently used. Third, patching procedures are being reviewed to see if improvements can be made.